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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------|-------------|----------------------|-------------------------|------------------|
| 10/625,348 | 07/23/2003 | Michael C. Breslin | 28810/04001 | 8604 |
| 24024 | 7590 | 07/08/2005 | EXAMINER | |
| CALFEE HALTER & GRISWOLD, LLP | | | CARRILLO, BIBI SHARIDAN | |
| 800 SUPERIOR AVENUE | | | ART UNIT | PAPER NUMBER |
| SUITE 1400 | | | 1746 | |
| CLEVELAND, OH 44114 | | | | |

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------|----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/625,348 | BRESLIN ET AL. | |
| | Examiner | Art Unit | |
| | Sharidan Carrillo | 1746 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 May 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 16-24 is/are allowed.
 6) Claim(s) 1-5,7-9,15,25 and 27 is/are rejected.
 7) Claim(s) 6,10-14,26 and 28-30 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 3-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation of pressurized fluid at a temperature greater than room temperature constitutes new matter, the limitations of which are not taught by the specification, as originally filed. Page 6 ,line 10 teaches pressurized air at an elevated temperature. Line 11 teaches fluids at any temperature, including room temperature, a preferred temperature is at or near, above or below, the melting point of the molten metal. However, the specification fails to teach at a temperature greater than room temperature.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 10-14, 17, and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is indefinite because it is unclear what one of ordinary skill in the art

would consider as "other carbon". Are the "other carbon" solids, liquids, or gases. The examiner suggest amending the claim to recite carbon. Claim 17 is indefinite because it is unclear what one of ordinary skill in the art would consider as "analogous sulfides". Claim 27 is indefinite because it is unclear what one of ordinary skill in the art would consider as "some".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 7-8, 15, 25, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Sykes (5922144).

In reference to claims 1 and 25, Sykes teaches a method of removing metal from a surface by applying pressurized gas (col. 2, lines 5-10, col. 3, lines 50-65). In the instant specification, the term "non-wetting agent" is defined by a contact angle of less than 105 degrees. Since Sykes teaches the same cleaning agent as the instantly claimed invention, the limitations of the contact angle are inherently met. Sykes teaches using pressurized oxygen and claim 2 recites the gas being air. Additionally col. 1, lines 15-17 teaches acetylene.

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In reference to claims 2, 4, and 27, the limitations are met by Sykes since Sykes teaches the same pressurized fluid as the instantly claimed invention. In reference to claim 3, refer to col. 4, lines 38-40. In reference to claim 5, Sykes teaches pressurized oxygen and in col. 1, lines 15-17, Sykes teaches acetylene. In reference to claim 7, the limitations are met since Sykes teaches the same pressurized fluid as the instantly claimed invention. In reference to claim 8, Sykes teaches pressurized oxygen with a combustible gas. In reference to claim 15, Sykes teaches cutting steel which functions as an "armor" for the ship. The steel functions as an armor for the ship.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sykes (5922144) in view of Holzman (3734476).

Sykes teaches the invention substantially as claimed with the exception of the molten metal comprising aluminum. Sykes teaches cutting steel by blowing away the molten metal from the surface using pressurized oxygen. Holzman teaches a method of cutting metal, such as aluminum, using a cutting torch comprising pressurized oxygen (col. 1, lines 25-30, col. 2, lines 20-25),

It would have been obvious to a person of ordinary skill in the art to have modified the method of Sykes to include other metals such as aluminum, since Holzman teaches cutting metals, such as aluminum using the same cutting torch comprising oxygen, as that of Sykes. It would have been within the level of the skilled artisan to have modified the method of Sykes to include other metals since both Sykes and Holzman teaches a cutting torch comprising oxygen for cutting metals and further since

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Holzman teaches that the cutting torch can also be used to cut difficult metals such as aluminum.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boedecker et al. teach an apparatus for flame cutting metal.

Middleton teaches cutting tools comprising carbides.

Allowable Subject Matter

11. Claims 6, 10-14, 26, and 28-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 16-24 are allowed.

13. The following is a statement of reasons for the indication of allowable subject matter. The prior art fails to teach or suggest the limitations as recited in claims 6, 10-14, 16-24, 26, and 28-30.

Response to Arguments

14. The rejection of the claims, under 112, first paragraph (enablement), is withdrawn in view of arguments presented by applicant. However, claims 3-4 are rejected under 112, first paragraph as constituting new matter.

15. The rejection of the claims, under 112, second paragraph, is maintained for the reasons set forth above.

16. Applicant argues that the prior art of Sykes fails to teach the contact angle. Applicant further argues that the torch angle of Sykes is different from the contact angle of the present invention. The examiner agrees with applicant's argument that the torch angle

is different from the wetting or contact angle of the present invention. However, the rejection is maintained for the following reasons. Since Sykes teaches the same fluid wetting agent, as the instantly claimed invention of claim 5, the limitations of a contact angle of less than about 105 degrees are inherently met by the teachings of Sykes. Specifically, since Sykes teaches removing molten metal from a surface by applying the same pressurized gas as the instantly claimed invention, the limitations of the contact angle are inherently met since Sykes teaches performing the same method steps using the same composition.

17. Applicant also required reasoning for the rejection of claims 26, 28 and 29. These claims were not rejected as being anticipated by Sykes and are now indicated allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on M-W 6:30-4:00pm, alternating Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sharidan Carrillo
Primary Examiner
Art Unit 1746

bsc



SHARIDAN CARRILLO
PRIMARY EXAMINER